
स्नेहक, औद्योगिक तेल एवं संबद्ध
उत्पादों के सामान्य वर्गीकरण
भाग 2 फैमिली ए (समग्र क्षति पद्धति)
(पहला पुनरीक्षण)

**General Classification of
Lubricants, Industrial Oils and
Related Products**

Part 2 Family A (Total Loss Systems)

(First Revision)

ICS 75.100

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FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards after the draft finalized by the Lubricants and their Related Products Sectional Committee had been approved by the Petroleum, Coal and Related Products Division Council.

This standard was originally published in 1989 by deriving considerable assistance from ISO 6743-1 : 1981 'Lubricants, industrial oils and related products (Class L) — Classification — Part 1: Family A (total loss systems)' issued by the International Organization for Standardization (ISO).

The classification described in this standard is intended for the guidance to the consumers and manufacturers of lubricants, industrial oils and related products.

This standard is one of the series of Indian Standards on 'General classification of lubricants, industrial oils and related products'. Other standards published so far in this series are:

- Part 1 Class L
- Part 3 Family F (spindle bearing, bearing and associated clutches)
- Part 4 Family D (compressors)
- Part 5 Family H (hydraulic systems)
- Part 6 Family T (turbines)
- Part 7 Family C (gears)
- Part 13 Family Q (heat transfer fluids)

This standard should be read in conjunction with IS 11159 (Part 1). In this first revision, the standard has been aligned with ISO 6743-1 : 2002 'Lubricants, industrial oils and related products (Class L) — Classification — Part 1: Family A (total loss systems)' and references have been updated.

The composition of the Committee responsible for the formulation of this standard is given in Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*).'

*Indian Standard***CLASSIFICATION OF LUBRICANTS, INDUSTRIAL
OILS AND RELATED PRODUCTS****PART 2 FAMILY A (TOTAL LOSS SYSTEMS)***(First Revision)***1 SCOPE**

This Indian Standard (Part 2) prescribes a detailed classification of family A (total loss systems) for lubricants, industrial oils and related products (Class L) covered under IS 11159 (Part 1).

2 REFERENCES

The following Indian Standards contain provisions which, through reference in this text, constitute the provisions of the standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

<i>IS No.</i>	<i>Title</i>
9466 : 2020	Viscosity classification for industrial liquid lubricants (<i>first revision</i>)
11159 (Part 1) : 2020	General classification of lubricants, industrial oils and related products: Part 1 Class L (<i>first revision</i>)

3 EXPLANATION OF SYMBOLS USED

3.1 The detailed classification of family A (*see* Table 1) has been established by defining the main application and composition of corresponding products.

3.2 Each category is designated by a symbol consisting of a group of letters, which together constitute a code.

NOTE — The first letter of the code (A) identifies the family of the product considered but the second letter taken separately has no significance of its own.

3.3 The designation of each category may be supplemented by the addition of viscosity grades according to IS 9466.

3.4 In this classification system, products are designated in a uniform manner. For example, a particular product may be designated in complete form, that is, IS-L-AN32, or in an abbreviated form, that is, L-AN32, the number indicates the viscosity grade according to IS 9466.

**Table 1 Classification of Lubricants, Industrial Oils and Related Products
(Class L)-Family A (Total Loss Systems)**

(Clause 3.1)

Code Letter	General Application	Composition and Special Properties	Symbol IS-L	Typical Application
(1)	(2)	(3)	(4)	(5)
A	Total loss systems	a) Mildly refined mineral oils	AY	Rough applications, axles, railway points, etc ¹⁾
		b) Refined mineral oils with improved properties, for example, adhesiveness, extreme pressure, anti-corrosion, which may be obtained with bitumen and/or additives	AB	Open gears, wire ropes
		c) Refined mineral oils	AN	Lightly loaded parts (rolling bearings, gears), plain bearings in hydrodynamic regime
		d) Refined mineral oils containing bitumen or additives to improve certain properties, for example, adhesiveness, extreme pressure, anti-corrosion	AB	Open gears, wire ropes, mechanical chains ²⁾
		e) Oils, either of mineral, animal, vegetable or synthetic origin, containing suitable additives to impart the necessary properties	AC	Chains of chain saws

NOTES

1 Some products of this category may contain components which could be harmful to health and environment. For those implying direct discharge into the environment, the lubricant has to comply with the applicable regulation in force in by both state and central governments.

2 For some applications, such as open gears, wire ropes, exposed chains, railway points, rail curves and plain bearings, etc., soft to fluid lubricating greases may be used. The classification and specifications of such greases are addressed separately.

ANNEX A*(Foreword)***COMMITTEE COMPOSITION**

Lubricants and their Related Products Sectional Committee, PCD 25

<i>Organization</i>	<i>Representative(s)</i>
Gulf Oil Lubricants India Ltd, Mumbai	DR Y. P. RAO (Chairman)
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Ashok Leyland Ltd, Chennai	SHRI D. BALAKRISHNAN SHRI RAVI M. (<i>Alternate</i>)
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IS 11159 (Part 2) : 2021

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Society of Indian Automobile Manufacturers, New Delhi	SHRI P. K. BANERJEE SHRI ATANU GANGULI (<i>Alternate</i>)
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